

Response

Applicant: Peter J. Fritz

Serial No.: 10/081,794

Filed: February 21, 2002

Docket No.: M120.169.103 (54666US006)

Title: METHOD FOR ATTACHING A FASTENER TO A SURFACE TREATING MEMBER, AND SUCH AN ARTICLE HAVING A FASTENER

REMARKS

This is responsive to the Non-Final Office Action mailed April 7, 2006 wherein claims 31, 32, 35-40, 43-58, 52-54, and 56 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Johnson et al., U.S. Patent No. 3,562,968 ("Johnson") in view of Peterson, U.S. Patent No. 4,551,189 ("Peterson").

Claims 31-56 are presented for consideration and allowance.

35 U.S.C. § 103 Rejections

Claim 31 stands rejected as unpatentable over Johnson in view of Peterson. Claim 31 relates, in part, to a method for attaching a fastener to a surface conditioning member, including inducing relative rotation between the fastener and the surface conditioning member with a layer of thermoplastic adhesive in contact with a planar surface of the fastener and the surface conditioning member so as to soften the layer of adhesive to form a bond between the fastener and the surface conditioning member. For at least the reasons described below, the cited references fail to teach or suggest such limitations.

As acceded to in the Office Action, Johnson "does not disclose that the fastener is attached to the member [of Johnson] by inducing relative rotation between the fastener and the surface conditioning member [of Johnson]..." Instead, the Office Action relies upon Peterson as disclosing "a method of attaching a planar surface (see figure 4) of a fastener to a member by inducing relative rotation between the fastener and the member with a layer of thermoplastic adhesive (50) in contact with a planar surface of the fastener and the member so as to soften the layer of thermoplastic adhesive..." NFOA 04-07-06 at p. 3. With reference to Figure 4 of Peterson, both the cavity 30, as well as the wall 40 of Peterson, are tapered such that the cavity 30 and the wall 40 of Peterson "taper in thickness." When thought of in three-dimensional terms, this means that the cavity 30, and the wall 40, are not planar, but instead project downward more so in the center than at the edges. Peterson at col. 2, ll. 7-18. This is described by Peterson as a critical feature. "Because the central web 42 is the thickest portion of the cross wall 40, the central web 42 makes the initial frictional contact with the substrate and causes heat

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to build up from the center of the lower surface 31....” Peterson at col. 2, ll. 51-55. Thus, Peterson specifically teaches away from inducing relative rotation between the fastener and the surface conditioning member with a layer of thermoplastic adhesive in contact with a planar surface of the fastener and the surface conditioning member so as to soften the layer of adhesive to form a bond between the fastener and the surface conditioning member as required by the limitations of claim 31.

In view of at least the above, a prima facie case of obviousness is not established, as one having ordinary skill in the art would not be motivated to combine the cited references. Withdrawal of the rejection of claim 31, allowance of that claim, and notice to that effect are respectfully requested. The remaining claims all depend, in some form, from independent claim 31. As such, they are believed allowable over the cited references for at least the reasons described in association with claim 31. Furthermore, the dependent claims can be further distinguished from the cited references for at least the additional reasons presented below.

For example, claims 53 relates to the planar surface of the fastener being parallel to the surface conditioning member. Figure 3 and the associated description of Peterson teach away from such limitations. Once again, Peterson clearly shows the cavity 30 and wall 40 as being tapered and indicates the criticality of such features. As such, claim 53 is further distinguishable and should be deemed patentable over the cited references.

As another example, claim 54 relates to a step of placing a sheet of adhesive between the fastener and the surface conditioning member prior to inducing relative rotation between the fastener and the surface conditioning member. Peterson specifically describes that heat activated adhesive material should be inserted into cavity 30 of base member 24. With reference to the cavity 30 and the adhesive 50 shown in Figures 3 and 4 of Peterson, this teaches away from a sheet adhesive, as the adhesive 50 of Peterson is shaped as relative large blocks. In particular, one of ordinary skill in the art would not view the non-uniform blocks of Peterson as being a “sheet” as required by the limitations of 54, and would more likely view such blocks as teaching away from a sheet of adhesive. Thus, for at least such additional reasons, claim 54 is further distinguishable and should be deemed patentable over the cited references.

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As yet another example, claim 56 relates to bonding the fastener more firmly at the outer portion than at the central portion. Peterson specifically dictates that center should be heated and melted first. Heating and bonding the center first, in fact, teaches away from the limitations of claim 56 relating to bonding a fastener more firmly at the outer portion than the central portion of a fastener. Indeed, Peterson describes that the process ends almost immediately after “the melting reaches flange 28.” This would more likely result in a weaker bond toward the flange 28 in comparison to the center. Thus, Peterson teaches away from the limitations of claim 56. In sum, claim 56 is further distinguishable and should be deemed allowable over the cited references for at least such additional reasons.

In view of at least the above, it is respectfully requested that the rejection of claims 31, 32, 35-40, 43-58, 52-54, and 56 be withdrawn, that claims 31-56 be deemed allowable, and that notice to that effect be provided.

CONCLUSION

In view of the above, Applicant respectfully submits that claims 31-56 are in form for allowance and are not taught or suggested by the cited references. Therefore, reconsideration and withdrawal of the rejections and allowance of claims 31-56 are respectfully requested.

No fees are required under 37 C.F.R. 1.16(b)(c). However, if such fees are required, the Patent Office is hereby authorized to charge Deposit Account No. 50-0471.

The Examiner is invited to contact the Applicant's representative at the below-listed telephone numbers to facilitate prosecution of this application.

Any inquiry regarding this Amendment and Response should be directed to Timothy A. Czaja at Telephone No. (612) 573-2004, Facsimile No. (612) 573-2005. In addition, all correspondence should continue to be directed to the following address:

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Respectfully submitted,

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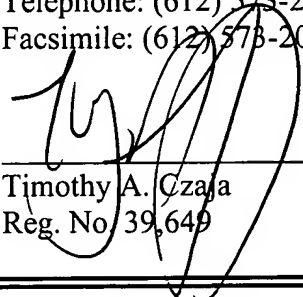
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CERTIFICATE UNDER 37 C.F.R. 1.8:

The undersigned hereby certifies that this paper or papers, as described herein, are being deposited in the United States Postal Service, as first class mail, in an envelope address to: Mail Stop Amendment Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 30th day of June, 2006.

By: 

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